National Progress Report of Turkey to the Nuclear Security Summit on the Implementation of the Washington Work Plan (Seoul, 26-27 March 2012)

- **A. International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT):** Turkey is among the initial signatories of ICSANT. The ratification of ICSANT was approved by the Turkish Grand National Assembly (TBMM) and endorsed by the President in February 2012. The instrument of ratification will be deposited as soon as the bureaucratic formalities are completed. Turkey pursues an active policy in support of the universalization and effective implementation of all terrorism related international instruments.
- **B.** Convention on the Physical Protection of Nuclear Material and the 2005 Amendment (CPPNM): Turkey is party to the CPPNM and fully implements its provisions. The ratification process of its 2005 Amendment is underway. Legal and administrative structures for an early implementation of the Amendment are already in place. Turkey actively supports the entry into force of the Amendment and the universalization of the CPPNM as amended.
- **C. United Nations Security Council Resolution 1540 (2004):** Turkey fully supports the implementation of the UNSC Resolution 1540 and regularly reports to the relevant UN Committee of any updates. The matrix of Turkey as approved in November 2010 is available on the Committee's website. Turkey actively promotes the objectives and the work of the 1540 Committee and contributes to its outreach activities. Most recently, event entitled "Promoting the Global Instruments of Non-proliferation and Disarmament: The UN and the Nuclear Challenge", hosted jointly by Japan, Poland, and Turkey on 31 May 2011, in New York, was attended by the 1540 Committee Chairman and 1540 experts. Similarly, workshop on the "Regional Implementation of the UN Global Counter-Terrorism Strategy in the Eastern African Region", co-organized by Ethiopia and the UN Counter Terrorism Implementation Task Force with the support of Austria, Germany, Norway, Switzerland, Turkey and the USA, on 27-28 July 2011 in Addis Ababa, was attended by a 1540 expert. Finally, Turkish experts attended the workshop on "Implementing Security Council Resolution 1540 (2004) for Southeast European States", organized in Split in June 2010.
- D. IAEA activities in support of nuclear security: An IAEA International Physical Protection Advisory Service (IPPAS) mission was carried out in Turkey in June/July 2003. Turkey is planning to invite the IAEA for a follow-up mission in the coming period. In June 2010, Turkey received an IAEA advisory mission on State systems for accountancy and control (ISSAS), during which the draft national regulation on accounting for and control of nuclear materials was discussed and recommendations of the IAEA team were reflected on the reviewed text. Turkey has notified the IAEA of its support for the IAEA Code of Conduct on the Safety and Security of Radioactive Sources. Turkey's legislation and practices are fully in line with the Supplementary Guidance on the Import and Export of Radioactive Sources. Turkey has appointed a Point of Contact for the Guidance and responded to the Self-Assessment Questionnaire. Preparations are underway to formally notify the IAEA of Turkey's support to the Guidance. Turkey supports the establishment of the IAEA Nuclear Security Guidance Committee and has informed the IAEA of its intention to participate in the work of the Committee. Turkish experts have participated in technical meetings organized by the IAEA to review Nuclear Security Recommendations on "Physical Protection of Nuclear Material and Nuclear Facilities", "Radioactive Material and Associated Facilities" and "Nuclear and Other Radioactive Material out of Regulatory Control" and contributed to the preparation of these documents by providing Turkey's comments and proposals.
- **E. Global Initiative to Combat Nuclear Terrorism (GICNT), G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (WMD), and other bilateral, regional, multilateral, and non-governmental activities:** Turkey has supported the GICNT at the very beginning and hosted its second meeting in Ankara, in February 2007. Turkey has declared its support to the Proliferation Security Initiative (PSI) and has organized a live PSI exercise in 2006. Turkey has been regularly attending and contributing to the PSI activities. Turkey hosted workshops in Antalya in cooperation with Global Initiative Study Network (GISN) and Akdeniz University in 2009 and 2010 on illicit trafficking of nuclear materials.
- **F. Recognizing that highly enriched uranium (HEU) and separated plutonium are particularly sensitive and require special precautions:** HEU fuel used in the 5 MW research reactor at the Turkish Atomic Energy Authority's (TAEK) Çekmece Nuclear Research and Training Center since 1980, was exchanged with low enriched uranium. Depleted fuel elements were shipped back to the USA on 14 December 2009, in accordance with the conditions determined by the IAEA standards and national legislation. IAEA supervised the exchange. The ratification of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management has been taken on the agenda of the TBMM General Assembly in its current session.

- **G. Maintaining effective nuclear security and a robust domestic regulatory capacity:** Turkey is updating its nuclear legislation in line with the IAEA's latest safety and security standards, including documents contained in the Nuclear Security Series. TAEK is currently revising the 1997 National Regulation on Accounting for and Control of Nuclear Materials in accordance with the provisions of the Additional Protocol and IAEA recommendations. Furthermore, a new draft regulation on the physical protection of the nuclear facilities and nuclear material, based on the IAEA's INFCIRC/225/Rev.5 document, has been prepared by TAEK to replace the old regulation. Formal procedures are underway for the approval of the new regulation. Recommendations contained in INFCIRC/225/Rev.5 and provisions of the "Implementing Guide on the Development, Use and Maintenance of the Design Basis Threat" are taken into consideration in determining the design basis threat. Within the context of a proposed EU project entitled "assistance to TAEK for enhancing the effectiveness and efficiency of nuclear regulatory infrastructure", nuclear security and safety infrastructure of Turkey will also be addressed.
- **H. The role of the nuclear industry in nuclear security:** Turkey is working closely with its emerging nuclear industry in determining the nuclear security requirements and developing necessary legal and practical infrastructure for its current and future nuclear facilities, particularly in the context of the Akkuyu Nuclear Power Plant project. Turkey's nuclear legislation and civil nuclear cooperation agreements with other countries contain strong provisions on physical protection measures required for industrial projects. The Advisory Council, the consultative body of the Turkish Atomic Energy Commission, includes representatives of the industry, as well as Government representatives and academicians.
- I. The human dimension of nuclear security, security culture, and maintaining a well-trained cadre of technical experts: Turkey actively participates in the implementation of the IAEA project on "supporting human resource development in nuclear security" for 2012-2013 period. Regular training courses are conducted by TAEK on various aspects of nuclear security for experts from relevant agencies, including law enforcement and customs officials, as well as for representatives of nuclear industry and academic institutions. TAEK's 2012 training program includes specific courses on "physical protection of nuclear material and facilities" and "accounting and control of nuclear material". Turkish experts participate also in regional and international workshops, seminars and training courses. Draft regulation on the physical protection of the nuclear facilities and nuclear material contains provisions on "nuclear security culture" and information security. Regular training courses are organized on WMD terrorism by the Center of Excellence Defence Against Terrorism, established by the Turkish General Staff and accredited by NATO, with Turkish and foreign participation.
- J. Detect, prevent, suppress, investigate, and prosecute acts or attempted acts of illicit nuclear trafficking and nuclear terrorism: The Turkish Criminal Code prohibits and penalizes the production, import/export, transport within the country, storage, trade or processing of radioactive, chemical, biological materials by unauthorized persons. The Anti-Smuggling Law and Counter Terrorism Act, also applicable provisions. Turkey's 2010-1012 Action Plan Against Organized Crime instructs relevant agencies to continue to undertake coordinated activities against smuggling of materials for use in chemical, biological, nuclear and radiological weapons. Turkey accepted and started to implement the Customs Cooperation Council Recommendation of the World Customs Organization on action against illicit cross-border movement of nuclear and hazardous material, including their waste. Turkey has been part of the Illicit Trafficking Database of the IAEA since 1996. As part of ongoing national capacity building efforts, experts from relevant agencies have participated in a number of regional and international events and training courses, including the commodity identification training program under the Export Control and Related Border Security Program (EXBS) in Ankara in February 2011, meeting on the essential elements of the nuclear security in Illinois in October 2011 and the counter nuclear smuggling conference in Warsaw in February 2012. A joint Turkish/Bulgarian workshop on best practices in countering illegal trafficking in radioactive materials will be organized in Burgas in April 2012 with the support of the Office of Second Line of Defence of the US Department of Energy.
- **K. Nuclear detection and nuclear forensics:** Turkey continues to invest on its nuclear detection and nuclear forensic capacity and capabilities. Most recently, together with representatives from 11 other countries, Turkish experts participated in the "International Workshop on Nuclear Forensics Methodologies" organized by the USA in cooperation with the IAEA. The Turkish customs are working in an automated environment since 2001. 99% of the data are saved and processed in a computerized network. Security at the customs have also been enhanced by the installation of advanced X-ray equipment. Turkey actively contributes to the work carried out within the IAEA and elsewhere to develop international standards and practical measures to monitor, intercept and manage radioactive scrap metal. Turkey developed "Instruction Manual of Radiation Detection System at the Border Gates", and a "Nuclear and Radioactive Material Notification Form" for use at border crossings. Counter smuggling and organized crime units located in 81 provinces and 36 districts have been equipped with portable radiation dose rate meters.